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EXAMINER

YE, LIN

ART UNIT PAPER NUMBER

2615

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,838

Applicant(s)

WU, CHIN-SHU

Examiner

Lin Ye

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-4, 6, 8-9, 11, 13, 15-16 and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al. U.S. Publication 2004/0218051 in view of Inagaki U.S. Patent 6,825,950.

Referring to claim 1, the Hsu reference discloses in Figures 1A-B and 2, an apparatus of a capsule form digital camera (11, see page 1, [0015]), said apparatus comprises: a first case (pen 12), wherein a shape of said first case is a sleeve; a second case (a rear casing 22), wherein a shape of said second case is an arc and is connected with said first case (12) as shown in Figure 1A-1B, a third case (a front casing 21), wherein a shape of said third case is an arc and is connected with said first case (12) and said second case (22) to form a closed space whose shape is a capsule form (for forming the casing module 2 with pen 12 as a capsule form appearance, see page 1, [0015] and [0017]); a main circuit module (e.g., a circuit module 3 includes a microprocessor, a memory, a counting circuit made at the same substrate), wherein said main circuit module is located into said closed space (e.g., the main circuit 3 located into the closed space of casing module 2 as shown in Figure 2) and comprises a motherboard to deal with a digital image datum (See page 2, lines 2-5); a camera

shutter module (photo capture module 4 associates with the key set 113), wherein said camera shutter module is located into said closed spaced and is connected with said main circuit module (3) to control a exposure time of said capsule form digital camera (See page 2, lines 6-10); a battery (See page 2, lines 3-5), wherein said battery is located into said closed space and is connected with said main circuit module to provide a power for said capsule form digital camera; a universal serial bus connector (USB I/O port, see page 2, [0024]), wherein said universal serial bus connector is located into said closed space and is connected with said main circuit module to transmit said digital image datum and a current; a liquid crystal (LCD 115, see page 1, [0016]) display module, wherein said liquid crystal display module is located into said closed space and is connected with said main circuit module (3) to provide a condition of said capsule form digital camera (see page 2, lines 1-10); and a camera lens frame (photo capture frame 112, see page 1, [0017]), wherein said camera lens frame is located in said closed space to assemble a lens as shown in Figure 1A. However, the Hsu reference does not show the battery is a lithium cell for providing a power to the digital camera.

The Inagaki reference teaches in Figure 1, a digital camera (100) comprising a photographic lens (12); image pickup element (14) (see Col. 3, lines 1-9); and power supply means (86), which is composed of a primary battery, such as a lithium cell (See Col. 6, lines 51-57). The Inagaki reference is evidence that one of ordinary skill in the art at the time to see more advantages the camera more preferably having a lithium cell to provide a power, because the lithium cell is a type of known rechargeable battery so that the camera system can prevent possible environmental pollutions due to the used batteries discarded or

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lessening the recycling problem of the used batteries. For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Hsu ('051) by providing a lithium cell to supply a power for the digital camera as taught by Inagaki ('950).

Referring to claim 3, the Hsu and Inagaki references disclose all subject matter as discussed with respect to claim 1, and the Hsu reference discloses wherein said third case (front case 21) comprises a camera lens hole (photo capture frame 112 has lens hole, the image is captured through this lens hole as shown in Figure 1A, see page 1, [0017]).

Referring to claim 4, the Hsu and Inagaki references disclose all subject matter as discussed with respect to claim 1, and the Inagaki reference discloses lithium cell (power supply means 86) can be electrified (the lithium cell can be electrified as a type of known rechargeable battery).

Referring to claim 6, the Hsu reference discloses in Figures 1A-B and 2, an apparatus of a capsule form digital camera (11, see page 1, [0015]), said apparatus comprises: a first case (a rear casing 22, see page 1, [0017]), wherein a shape of said first case is an arc; a main circuit module (e.g., a circuit module 3 includes a microprocessor, a memory, a counting circuit made at the same substrate as shown in Figure 2), wherein said main circuit module is assembled in said first case (22) and comprises a motherboard to deal with a digital image datum (See page 2, lines 2-5); a camera shutter module (photo capture module 4 has associates with the key set 113), wherein said camera shutter module is assembled in said first case (22) and is connected with said main circuit module to control a exposure time of said capsule form digital camera; a universal serial bus connector (USB I/O port, see page 2, [0024]), wherein said universal serial bus connector is located on said main circuit module

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and is connected with said main circuit module to transmit said digital image datum and a current; a battery is located on said main circuit module and is connected with said main circuit module to provide a power for said capsule form digital camera (See page 2, lines 3-5); a liquid crystal display module (LCD 115, see page 1, [0016]), wherein said liquid crystal display module comprises a liquid crystal display and a liquid crystal display circuit board and is connected with said main circuit module (3) to provide a condition of said capsule form digital camera (see page 2, lines 1-10); and a camera lens frame (photo capture frame 112, see page 1, [0017]), wherein said camera lens frame is located on said main circuit module (3) to be used to assemble a camera lens; a second case (a front casing 21), wherein a shape of said second case is an arc and is connected with said partial first case (22); and a third case (pen 12), wherein a shape of said third case is a sleeve and is connected with said first case (22) and said second case (21) to form a capsule form (e.g., for forming the casing module 2 with pen 12 as a capsule form appearance, see page 1, [0015] and [0017]).

However, the Hsu reference does not show the battery is a lithium cell.

The Inagaki reference teaches in Figure 1, a digital camera (100) comprising a photographic lens (12); image pickup element (14) (see Col. 3, lines 1-9); and power supply means (86), which is composed of a primary battery, such as a lithium cell (See Col. 6, lines 51-57). The Inagaki reference is evidence that one of ordinary skill in the art at the time to see more advantages the camera more preferably having a lithium cell to provide a power, because the lithium cell is a type of known rechargeable battery which can be electrified, wherein the rechargeable battery which can be electrified and to proceed a electrifying process by using said current, so that the camera system can prevent possible environmental

pollutions due to the used batteries discarded or lessening the recycling problem of the used batteries. For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Hsu ('051) by providing a lithium cell to supply a power for the digital camera as taught by Inagaki ('950).

Referring to claim 8, the Hsu and Inagaki references disclose all subject matter as discussed with respect to claim 6, and the Hsu reference discloses wherein said second case (front case 21) comprises a camera lens hole (photo capture frame 112 has camera lens hole and lens, the image is captured through this lens hole as shown in Figure 1A, see pages 1-2, [0017]).

Referring to claim 9, the Hsu and Inagaki references disclose all subject matter as discussed with respect to claim 6, and the Hsu reference discloses a first lens (view finder window 111 has a first transparent plate as the first lens in the rear casing 22 for viewing the image to be captured as shown in 1B, see page 1 [0016]) is located between said first case (rear casing 22) and said main circuit module (the main circuit module 3 and photo capture module 4 are made at the same substrate included in the case module 2 as shown in Figure 2, see page 2, lines 1-9).

Referring to claim 11, the Hsu and Inagaki references disclose all subject matter as discussed with respect to claim 6, and the Hsu reference discloses wherein a second lens (view finder window 111 has a second transparent plate as the second lens in the front casing 21 for viewing the image to be captured as shown in Figure 1A, see page 1 [0017]) is located between said second case (rear casing 21) and said main circuit module (the main circuit

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module 3 and photo capture module 4 are made at the same substrate included in the case module 2 as shown in Figure 2, see page 2, lines 1-9).

Referring to claim 13, the Hsu reference discloses in Figures 1A-B and 2, an apparatus of a capsule form digital camera (11, see page 1, [0015]), said apparatus comprises: a first case (a rear casing 22, see page 1, [0017]), wherein a shape of said first case is an arc; a main circuit module (e.g., a circuit module 3 includes a microprocessor, a memory, a counting circuit made at the same substrate as shown in Figure 2), wherein said main circuit module is assembled in said first case (22) and comprises a motherboard to deal with a digital image datum (See page 2, lines 2-5); a camera shutter module (photo capture module 4 has associates with the key set 113), wherein said camera shutter module is assembled in said first case (22) and is connected with said main circuit module to control a exposure time of said capsule form digital camera; a universal serial bus connector (USB I/O port, see page 2, [0024]), wherein said universal serial bus connector is located on said main circuit module and is connected with said main circuit module to transmit said digital image datum and a current; a battery is located on said main circuit module and is connected with said main circuit module to provide a power for said capsule form digital camera (See page 2, lines 3-5); a liquid crystal display module (LCD 115, see page 1, [0016]), wherein said liquid crystal display module comprises a liquid crystal display and a liquid crystal display circuit board and is connected with said main circuit module (3) to provide a condition of said capsule form digital camera (see page 2, lines 1-10); and a camera lens frame (photo capture frame 112, see page 1, [0017]), wherein said camera lens frame is located on a second surface of said main circuit module (3) to be used to assemble a camera lens; a viewfinder frame

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(window 111), wherein said viewfinder frame is located on said second surface of said main circuit module (3) to be used to assemble a first lens (e.g., view finder window 111 has a first transparent plate as the first lens in the rear casing 22 for viewing the image to be captured as shown in 1B, see page 1 [0016]) and a second lens (e.g., view finder window 111 has a second transparent plate as the second lens in the front casing 21 for viewing the image to be captured as shown in Figure 1A, see page 1 [0017]); a second case (a front casing 21), wherein a shape of said second case is an arc and is connected with said partial first case (22); and a third case (pen 12), wherein a shape of said third case is a sleeve and is connected with said first case (22) and said second case (21) to form a capsule form (e.g., for forming the casing module 2 with pen 12 as a capsule form appearance, see page 1, [0015] and [0017]). However, the Hsu reference does not show the battery is a lithium cell.

The Inagaki reference teaches in Figure 1, a digital camera (100) comprising a photographic lens (12); image pickup element (14) (see Col. 3, lines 1-9); and power supply means (86), which is composed of a primary battery, such as a lithium cell (See Col. 6, lines 51-57). The Inagaki reference is evidence that one of ordinary skill in the art at the time to see more advantages the camera more preferably having a lithium cell to provide a power, because the lithium cell is a type of known rechargeable battery which can be electrified, wherein the rechargeable battery which can be electrified and to proceed a electrifying process by using said current, so that the camera system can prevent possible environmental pollutions due to the used batteries discarded or lessening the recycling problem of the used batteries. For that reason, it would have been obvious to one of ordinary skill in the art to

modify the camera system of Hsu ('051) by providing a lithium cell to supply a power for the digital camera as taught by Inagaki ('950).

Referring to claim 15, the Hsu and Inagaki references disclose all subject matter as discussed with respect to claim 13, and the Hsu reference discloses wherein said second case (front case 21) comprises a camera lens hole (photo capture frame 112 has camera lens hole and lens, the image is captured through this lens hole as shown in Figure 1A, see pages 1-2, [0017]).

Referring to claim 16, the Hsu and Inagaki references disclose all subject matter as discussed with respect to claim 6, and the Hsu reference discloses the first lens (view finder window 111 has a first transparent plate as the first lens in the rear casing 22 for viewing the image to be captured as shown in 1B, see page 1 [0016]) is located between said first case (rear casing 22) and said main circuit module (the main circuit module 3 and photo capture module 4 are made at the same substrate included in the case module 2 as shown in Figure 2, see page 2, lines 1-9).

Referring to claim 18, the Hsu and Inagaki references disclose all subject matter as discussed with respect to claim 6, and the Hsu reference discloses wherein a second lens (view finder window 111 has a second transparent plate as the second lens in the front casing 21 for viewing the image to be captured as shown in Figure 1A, see page 1 [0017]) is located between said second case (rear casing 21) and said main circuit module (the main circuit module 3 and photo capture module 4 are made at the same substrate included in the case module 2 as shown in Figure 2, see page 2, lines 1-9).

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3. Claim 2, 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al. U.S. Publication 2004/0218051 in view of and Inagaki U.S. Patent 6,825,950 and Kweon U.S. Patent 6,667,771.

Referring to claim 2, the Hsu and Inagaki references disclose all subject matter as discussed with respect to claim 1, except that the Hsu reference does not explicitly show the partial second case is in said first case.

The Kweon reference teaches in Figures 2-4, an apparatus of a capsule form (compact ball-point pen appearance) digital camera, said apparatus comprises: a first case (lower portion 21), wherein a shaper of said first case is a sleeve; and a second case (upper portion 23, see Col. 3, lines 45-47) is an arc and includes a main circuit (50) and image sensor (4) and lens (See page 3, lines 63-67) to form a closed space whose shape is a capsule form (ball-point pen appearance); and said partial second case is in said first case (the end of the second case 23 has thread 48 for inserting to the first case 21 as shown in Figure 3). The Kweon reference is evidence that one of ordinary skill in the art at the time to see more advantages the pen camera system has the partial second case is in the first case so that the digital camera can have more flexible design options to form a case having a ball-point appearance and photographing a particular location in secret is possible without exposure to others (See abstract). For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Hsu ('051) by providing the partial second case is in said first case to form a closed space whose shape is a capsule form as taught by Kweon ('771).

Referring to claim 7, the Hsu and Inagaki references disclose all subject matter as discussed with respect to claim 6, except that the Hsu reference does not explicitly show the partial first case is in said third case.

The Kweon reference teaches in Figures 2-4, an apparatus of a capsule form (compact ball-point pen appearance) digital camera, said apparatus comprises: a third case (low portion 21), wherein a shaper of said third case is a sleeve; and an first case (upper portion 23, see Col. 3, lines 45-47) is an arc and includes a main circuit (50) and image sensor (4) and lens (See page 3, lines 63-67) to form a closed space whose shape is a capsule form (ball-point pen appearance); and said partial first case is in said third case (the end of the first case 23 has thread 48 for inserting to the third case 21 as shown in Figure 3). The Kweon reference is evidence that one of ordinary skill in the art at the time to see more advantages the pen camera system has the partial first case is in the third case so that the digital camera can have more flexible design options to form a case having a ball-point appearance and photographing a particular location in secret is possible without exposure to others (See abstract). For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Hsu ('051) by providing the partial first case is in said third case to form a closed space whose shape is a capsule form as taught by Kweon ('771).

Referring to claim 14, the Hsu and Inagaki references disclose all subject matter as discussed with respect to claim 13, except that the Hsu reference does not explicitly show the partial first case is in said third case.

The Kweon reference teaches in Figures 2-4, an apparatus of a capsule form (compact ball-point pen appearance) digital camera, said apparatus comprises: a third case (low

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portion 21), wherein a shaper of said third case is a sleeve; and an first case (upper portion 23, see Col. 3, lines 45-47) is an arc and includes a main circuit (50) and image sensor (4) and lens (See page 3, lines 63-67) to form a closed space whose shape is a capsule form (ball-point pen appearance); and said partial first case is in said third case (the end of the first case 23 has thread 48 for inserting to the third case 21 as shown in Figure 3). The Kweon reference is evidence that one of ordinary skill in the art at the time to see more advantages the pen camera system has the partial first case is in the third case so that the digital camera can have more flexible design options to form a case having a ball-point appearance and photographing a particular location in secret is possible without exposure to others (See abstract). For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Hsu ('051) by providing the partial first case is in said third case to from a closed space whose shape is a capsule form as taught by Kweon ('771).

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al. U.S. Publication 2004/0218051 in view of and Inagaki U.S. Patent 6,825,950 and Hsu U.S. Patent 6,798,173.

Referring to claim 5, the Hsu ('051) and Inagaki ('950) references disclose all subject matter as discussed with respected to claims 1 and 4, except that the references do not explicitly show using universal serial bus to proceed a electrifying process.

The Hsu ('173) reference teaches in Figures 1-2, and automatic charging device electrifies the battery by using Universal serial bus (USB) to proceed a electrifying process (See Col. 3, lines 44-50). The Hsu ('173) reference is evidence that one of ordinary skill in

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the art at the time to see more advantages the lithium cell (rechargeable battery) which can be electrified can use said universal serial bus to proceed a electrifying process so that the system prolongs the power lifetime of a battery. For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Hsu ('051) by providing the lithium cell (rechargeable battery) which can be electrified can use said universal serial bus to proceed a electrifying process as taught by Hsu ('173).

5. Claims 10, 12, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al. U.S. Publication 2004/0218051 in view of and Inagaki U.S. Patent 6,825,950 and Yamamura U.S. Patent 5,664,244.

Referring to claims 10 and 12, the Hsu and Inagaki references disclose all subject matter as discussed with respected to claims 6, 9 and 11, except that the Hsu reference does not explicitly show the first lens (the first transparent plate of window 111 in the rear case 22) is a convex lens and the second lens (the second transparent plate of window 111 in the front case 21) is a concave lens.

The Yamamura reference teaches in Figure 9, a viewfinder device has a first lens (eye piece lens element 28) which is a convex and the second lens (objective lens element 2) which is a concave lens (See Col. 7, lines 39-45). The Yamamura reference is evidence that one of ordinary skill in the art at the time to see more advantages the viewfinder device has a first lens is a convex lens and a second lens is a concave lens so that a photographic field to be framed can be observed clearly with an object image (See Col. 2, lines 14-17). For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera

system of Hsu ('051) by providing a first lens is a convex and second lens is a concave lens included in the viewfinder as taught by Yamamura ('244).

Referring to claims 17 and 19, the Hsu and Inagaki references disclose all subject matter as discussed with respected to claim 13, except that the Hsu reference does not explicitly show the first lens (the first transparent plate of window 111 in the rear case 22) is a convex lens and the second lens (the second transparent plate of window 111 in the front case 21) is a concave lens.

The Yamamura reference teaches in Figure 9, a viewfinder device has a first lens (eye piece lens element 28) which is a convex and the second lens (objective lens element 2) which is a concave lens (See Col. 7, lines 39-45). The Yamamura reference is evidence that one of ordinary skill in the art at the time to see more advantages the viewfinder device has a first lens is a convex lens and a second lens is a concave lens so that a photographic field to be framed can be observed clearly with an object image (See Col. 2, lines 14-17). For that reason, it would have been obvious to one of ordinary skill in the art to modify the camera system of Hsu ('051) by providing a first lens is a convex and second lens is a concave lens included in the viewfinder as taught by Yamamura ('244).

Conclusion

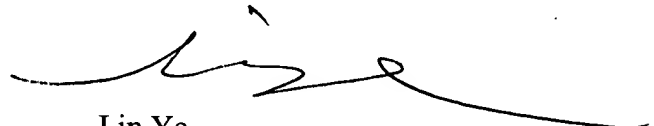
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - a. Silverbrook et al. U.S. 2004/0032501 discloses a camera module for a compact printer system.

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- b. Fischell U.S. 4,784,645 discloses a rechargeable power cell 26 (See Figure 8) is a lithium cell.
 - c. Iwakiet al. U.S. 5,223,871 discloses a camera more preferably use a rechargeable battery such as lithium cell.
 - d. Kobayashi U.S. 2001/0053703 discloses a portable phone with a camera.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lin Ye whose telephone number is (571) 272-7372. The examiner can normally be reached on Mon-Fri 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Groody can be reached on (571) 272-7950. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lin Ye
Examiner
Art Unit 2615

April 1, 2005